

Amendments to the Specification:

Please insert the following heading on page 1, between
lines 1 and 2:

FIELD OF THE INVENTION

Please amend the paragraph at page 1, lines 2-5 as follows:

The invention relates to a pressure medium activated
piston-cylinder device with a piston position indicating
device which comprises a magnetic activating element on the
piston and a sensor means ~~carried~~ supported on the cylinder
barrel.

Please insert the following heading on page 1, between
lines 5 and 6:

DESCRIPTION OF RELATED ART

Please amend the paragraph at page 1, lines 6-18 as follows:

According to a common technique, indication of piston positions in a cylinder bore is accomplished by a device comprising a magnetic activating element mounted on the piston and one or more single-point sensors adjustably mounted on the cylinder barrel. A problem concerned with this known technique is the difficulty to obtain a quick and easy setting of the sensors in the cylinder barrel. These sensors have to be moved individually and locked in their intended positions by manual ~~operation~~ operations, which is rather tricky and time consuming. Another problem is that the number of indicated positions is limited to a few points, which is limiting to the piston ~~action~~ operation control possibilities.

Please amend the paragraph at page 1, line 26 to page 2,
line 8 as follows:

In US Patent No. 6,351,117 there is described an alternative way of obtaining position indication in a piston-cylinder device by means of a magnetically activated magnetostrictive transducer using electric pulses for measurement. The transducer is mounted concentrically in the cylinder bore and ~~extend~~ extends from one of the cylinder end walls into the piston/piston rod, whereas the activation magnet is mounted on the piston. This is, however, a rather awkward location of the transducer, because it not only requires an expensive specially designed piston/piston rod and cylinder end wall but the transducer is difficult to get to in case of maintenance and replacement. A problem arising at piston-cylinder device applications is to find a way to locate the transducer without complicating the cylinder design compared to the above related common technique.

Please insert the following heading on page 2, between lines 17 and 18:

SUMMARY OF THE INVENTION

Please amend the paragraph at page 2, lines 18-28 as follows:

The ~~above-identified~~ above-identified problems related to prior art piston-cylinder devices with position sensing transducers are solved by the invention in that a piston-cylinder device is created wherein a standard type of extruded aluminium alloy barrel is used and wherein both the position sensing transducer and the circuit board electronics are fitted without any ~~special~~ advanced extra machining of the cylinder barrel and without adding to the outer dimensions of the device. Instead, the device according to the invention may preferably incorporate a standard type cylinder barrel having dimensions meeting the international standard ~~ISO-VDM~~ specifications of ISO and VDM A.

Please insert the following header at page 2, between
lines 28 and 29:

BRIEF DESCRIPTION OF THE DRAWINGS

Please amend the paragraph at page 2, lines 29 and 30 as
follows:

A preferred embodiment of the invention is described
below with reference to the accompanying ~~drawing~~ drawings.

Please amend the paragraph at page 2, line 31 as follows:

~~On~~ In the ~~drawing~~ drawings:

Please amend the paragraph at page 3, line 1 as follows:

Fig. 2 shows a ~~side~~ top view of the device in Fig. 1.

Please amend the paragraph at page 3, line 2 as follows:

Fig. 3 shows a cross section ~~of the device~~ along line
III-III in Fig. 1.

Please insert the following heading on page 3, between
lines 2 and 3:

DETAILED DESCRIPTION

Please amend the paragraph at page 3, lines 3-15 as follows:

The piston-cylinder device illustrated in the drawings comprises a cylinder barrel 10 with a cylinder bore 11 and two opposite end walls 12 and 13, a piston 14 movably guided in the cylinder bore 11 and a piston rod 15 extending out of the cylinder barrel 10 via an opening in one of the end walls 12. The cylinder barrel 10 is of a standard type ~~consisting of~~ including an extruded aluminium alloy body ~~including with~~ an outer elongate cavity or ~~groove~~ channel 20, which ~~The groove 20~~ is formed at the extrusion process. ~~which~~ This means that no advanced extra machining of the barrel 10 is necessary. The cylinder barrel 10 as well as the complete piston-cylinder device is dimensioned to meet the ~~ISO-VDM~~ international standard specifications of ISO and VDM A.

Please amend the paragraph at page 3, lines 16-21 as follows:

In a common way, the cylinder barrel 10 is provided with non-illustrated connections for communication of a pressure medium to and from the cylinder bore 11 as well as passages for ducting motive pressure medium to and from the ends of the cylinder bore 11 for accomplishing movement of the piston.

Please amend the paragraph at page 3, lines 22-29 as follows:

A position sensing and indicating device comprises an activating magnetic element 17 mounted on the piston 14, and an elongate electric contact free sensor unit in the form of a magnetostrictive transducer 18 mounted in the ~~groove~~ channel 20 ~~on~~ in the cylinder barrel 10. The transducer 18 extends over a major part of the length of the cylinder barrel 10 and is connected to electronic components on a circuit board 19. The circuit board 19 is also mounted in the ~~groove~~ channel 20.

Please amend the paragraph at page 3, line 30 to page 4,
line 2 as follows:

Since the ~~groove~~ channel 20 is open to the outside of the cylinder barrel 10 the transducer 18 and the circuit board 19 have to be protected from external damage, dirt etc. ~~This~~ Such protection is accomplished by a cover strip 21 which is preferably ~~is~~ made of a resinous material and ~~which closes~~ is arranged to close the ~~groove~~ channel 20 to the ambient environment.

Please amend the paragraph at page 4, lines 3-9 as follows:

So, the ~~groove~~ channel 20 is wide enough to comprise the circuit board 19, and adjacent to the circuit board 19 ~~there is also located~~ a panel 25 ~~carrying~~ is located that holds a number of LED elements 26a-d for visual indication of pre-set positions reached by the piston 14. A cable 27 extends out through the panel 25 for connecting the circuit board 19 to a remotely located programmable control unit, for instance a PC.

Please amend the paragraph at page 4, lines 24-27 as follows:

The operation order of the micro pulse operated magnetostrictive transducer 18 is well known per se, for instance through ~~US 3,898,555~~ US 3,898,555, and is not described in detail in this specification.

Please amend the paragraph at page 5, lines 3-8 as follows:

The position indicating points on the transducer 18 are set electronically via a remotely located computer and the electronic components of the circuit board 19. The electronics are preferably arranged so as to ~~make possible~~ enable an indication point setting according to the teach-in technique.

Please amend the paragraph at page 5, lines 9-15 as follows:

By locating the position transducer 18 and the electronic circuit board 19 in the ~~groove~~ channel 20 originally formed in the cylinder barrel 10, ~~there is obtained~~ a non-expensive and compact piston-cylinder device is obtained with over all dimensions meeting the ISO and VDM A standard specifications. Also, the new device provides for a good accessibility of the transducer and the circuit board for service and replacements.